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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,264	07/18/2003	Chia-Hua Chou	81842.0016	3497

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EXAMINER	
HALEY, JOSEPH R	

ART UNIT	PAPER NUMBER
2627	

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10/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/623,264	CHOU ET AL.	
	Examiner	Art Unit	
	Joseph Haley	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 7/16/07.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagai et al. (US 5060208)

In regard to claim 1, Nagai et al. teaches an optical drive controller (fig. 2 elements 43, 37, 42, 28, 30 and 41. Elements 37, 42, 28, 30 and 41 act to control element 43) adapted to couple to and cause a laser diode driver (4) to provide signals to drive the laser diode (3), the optical drive controller capable of testing a channel between the optical drive controller and a laser diode driver and, in response to testing a channel between the optical drive controller and the laser diode driver, generating a set of calibration signals to program a drive characteristic associated with the laser diode driver to accommodate a characteristic of a channel between the optical drive controller and the laser diode driver (Fig. 2 element 42. see also column 6 lines 36-55. see also column 6 lines 56-68) the set of calibration signals responsive to the timing characteristics tested by the optical drive controller (column 6 lines 36-55).

In regard to claim 2, Nagai et al. teaches the optical drive controller outputs one or more electrical test signals to a laser diode driver, through an electrical channel between a laser diode driver and the optical drive controller (fig. 2 element 4A), the

optical drive controller receiving one or more monitor signals generated in response to the one or more electrical test signals (fig. 2 element 28A), the one or more electrical monitor signals received through an electrical channel between a laser diode driver and the optical drive controller the optical drive controller generating one or more calibration signals responsive to the one or more monitor signals (column 6 lines 36-55).

In regard to claims 3, 7 and 11, Nagai et al. teaches the optical drive controller generates a control signal to set a laser diode driver in a calibration mode for a calibration process and generates a control signal to set a laser diode driver in a normal operation mode (column 3 lines 34-44. Nagai et al. teaches a test writing mode and a normal data writing mode. See also column 6 lines 9-18 where Nagai et al. teaches two separate clocks).

In regard to claim 4, Nagai et al. teaches the calibration signals adjust circuits within the optical drive controller (See also column 6 lines 9-18 where Nagai et al. teaches two separate clocks).

In regard to claim 5, Nagai et al. teaches the calibration signals adjust circuits within a laser diode driver (See also column 6 lines 9-18 where Nagai et al. teaches two separate clocks. It is inherent when a new clock is set, circuits will adjust).

In regard to claim 6, Nagai et al. teaches the optical drive controller outputs a test signal to a laser diode driver, the optical drive controller receiving a monitor signal generated in response to the test signal, the optical drive controller outputting a second test signal, responsive to the monitor signal, for calibrating a laser diode driver in an

iterative process (column 6 lines 36-55. see also column 6 lines 47-49 where Nagai et al. teaches two test patterns).

In regard to claims 8 and 9, Nagai et al. teaches WSR channels (For the purpose of examination, and in view of the specification, the examiner considers WSR channels to be wires. There is no evidence in the application that a WSR channel is anything but a wire. The Examiner has searched for WSR and found only shift registers. Therefore WSR has been given no patentable weight).

In regard to claim 9, Nagai et al. teaches the optical drive controller generates a calibration signal in response to the monitor signal (fig. 3 element 51) and, responsive to the calibration signal, programs a drive characteristic of a laser diode driver to accommodate a characteristic of the signal channel between the optical drive controller and a laser diode driver determined by testing (column 6 lines 36-55).

In regard to claim 12, see claim 9 rejection above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. further considered with Official Notice.

In regard to claim 10, Nagai et al. teaches all the elements of claim 10 except wherein the signal channel couples through a flexible cable.

The examiner takes Official Notice that using a flexible cable to connect a pickup head to the controller is well known. At the time of invention it would have been obvious to one of ordinary skill in the art to couple the signal channel through a flexible cable. The rationale is as follows: At the time of invention it would have been obvious to couple the signal channel through a flexible cable because the optical pick-up moves and if the cable is not flexible, the connection would be broken.

Response to Arguments

Applicant's arguments filed 7/16/07 have been fully considered but they are not persuasive. In response to applicant's arguments on page 6 that Nagai does not teach "testing a channel between the optical drive controller and a laser diode driver", it is quite clear from fig. 2 that Nagai tests signals from the laser drive circuit. Also as shown in column 6 lines 36-55, Nagai teaches the timing shift detection circuit reading the information from the disc and sending this information to the read/write control circuit. The read channel is between the drive controller and the laser diode driver.

Applicant argues on page 7 that Nagai does nothing to alter the signals provided to the laser drive circuit. However as shown in column 6 lines 56-68, Nagai uses the timing circuit to control the write clock that goes to the laser diode driver. This meets the limitation "in response to testing a channel between the optical drive controller and the laser diode driver, generating a set of calibration signals to program a drive characteristic associated with the laser diode driver to accommodate a characteristic of a channel between the optical drive controller and the laser diode driver."

Applicant argues on page 9 that Nagai does not "characterize the WSR channel". However the examiner maintains this rejection because nowhere in the specification are WSR channels described, nor are they well known in the art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Haley whose telephone number is 571-272-0574. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jrh

/William Korzuch/
SPE, Art Unit 2627